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Animal growth promoter - comprises enzyme core encapsulated in a water soluble film and coated with an enteric coating

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Number of Countries: 020 Number of Patents: 016

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8801512	A	19880310	WO 87US269	A	19870817	198811 B
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Priority Applications (No Type Date): AU 867714 A 19860828

Cited Patents: AU 268704; AU 504584; AU 516072; AU 7610299; FR 2419722; US 3803304; US 4447412; AU 1029976; EP 134703; EP 184754

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US 5567423 A 10 A61K-038/54 Cont of application WO 87AU269

Cont of application US 89328075

Cont of application US 92833587

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Abstract (Basic): WO 8801512 A

Promotant comprises microgranules having a core consisting of one or more enzymes selected from: (i) protein digesting enzymes, (ii) carbohydrate digesting enzymes, (iii) fat digesting enzymes and (iv) fibre digesting enzymes, the core being encapsulated within a water soluble film and coated with an enteric coating comprising an alkali soluble, acid insoluble polymer or a high mol. wt. polymer whose structure is subst. with or contains windows of fatty acid or other material capable of being solubilised by intestinal juices.

Pref. the core comprises enzyme(s) immobilised within a gel-like matrix of e.g. K-carrageenan, gelatin, alginates, cellulose or its derivs. or gel forming synthetic polymers. Pref. the water soluble film is gelatin and the alkali soluble acid insoluble polymer is cellulose acetate phthalate. The high mol. wt. polymer is pref. butyl methacrylate.

USE/ADVANTAGE - The gel matrix restricts the accessibility of denaturing agents such as organic solvents used in the application of an enteric coating to the enzymes. The growth promotant enables pH sensitive digestive enzymes to be provided form inactivation in the stomach or the rumen, yet be available for action in the intestinal tract, partic. the duodenum. The growth promotants increase animal wt. gain and improve feed utilisation. They also reduce carcass backfat giving leaner meat.

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Abstract (Equivalent): EP 319545 B

(Amended) A growth promotant comprising microgranules having a core consisting of one or more immobilized enzymes selected from: (i) protein digesting enzymes; (ii) carbohydrate digesting enzymes; (iii) fat digesting enzymes; and (iv) fibre digesting enzymes; the core being encapsulated within a water soluble film, and coated with an enteric coating comprising an alkali soluble, acid insoluble polymer, or a high molecular wt. polymer whose structure is substituted with or contains windows of fatty acid or other material capable of being solubilized by intestinal juices.

(17pp)

Abstract (Equivalent): US 5688502 A

Promotant comprises microgranules having a core consisting of one or more enzymes selected from: (i) protein digesting enzymes, (ii) carbohydrate digesting enzymes, (iii) fat digesting enzymes and (iv) fibre digesting enzymes, the core being encapsulated within a water soluble film and coated with an enteric coating comprising an alkali soluble, acid insoluble polymer or a high mol. wt. polymer whose structure is subst. with or contains windows of fatty acid or other material capable of being solubilised by intestinal juices.

Pref. the core comprises enzyme(s) immobilised within a gel-like matrix of e.g. K-carrageenan, gelatin, alginates, cellulose or its derivs. or gel forming synthetic polymers. Pref. the water soluble film is gelatin and the alkali soluble acid insoluble polymer is cellulose acetate phthalate. The high mol. wt. polymer is pref. butyl methacrylate.

USE/ADVANTAGE - The gel matrix restricts the accessibility of